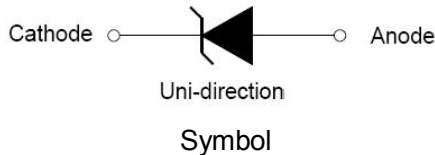
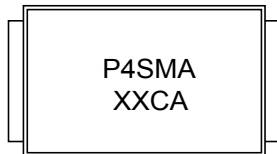
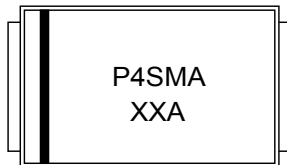


SMA

Features

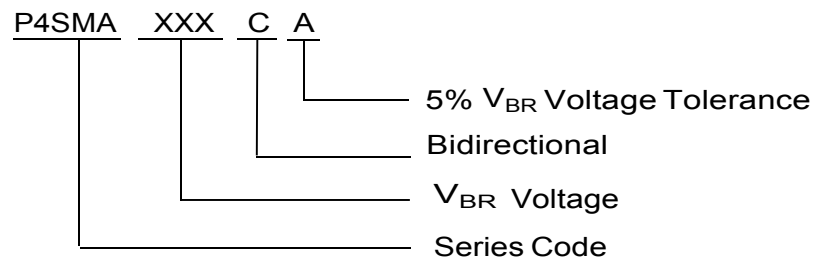
- Peak power dissipation 400W@10 x 1000 us Pulse
- Low incremental surge resistance
- Excellent clamping capability
- Glass passivated junction
- Fast response time
- Typical IR less than 1uA above 13V
- Halogen free and RoHS compliant

Mechanical Data

- CASE: SMAJ(DO-214AC) Molded Plastic
- Polarity: By cathode band denotes uni-directional device, none cathode band denotes bi-directional device
- Mounting Position: Any

Making Code & information


Package	Packing Description	Packing Quantity
SMA	Tape/Reel, 11" reel	5000


Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Units	Remarks
Peak Pulse Power Dissipation	P_{PPM}	400	W	(Note1)(Note2)
Steady State Power Dissipation	P_D	3.3	W	(Note3)
Peak Forward Surge Current	I_{FSM}	40	A	(Note4)
Maximum Instantaneous Forward Voltage at 20A	V_{FM}	3.5/6.5	V	(Note5)
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	30	°C/W	
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	120	°C/W	
Operating Temperature Range	T_J	-55 to 150	°C	
Storage Temperature Range	T_{STG}	-55 to 150	°C	

Notes1: Non-repetitive current pulse, 10/1000us Waveform.

Notes2: Mounted on copper pad area of 5x5mm to each terminal.

 Notes3: Infinite HeatSink at $T_A=50^\circ\text{C}$

Notes4: Measured on 8.3ms single half sine wave or equivalent square wave, duty cycle=4 per minute maximum.

 Notes5: For UnidirectionalOnly, $V_{FM}<3.5\text{V}$ for $V_{BR} \leq 200\text{V}$ and $V_{FM}<6.5\text{V}$ for $V_{BR} \geq 201\text{V}$.

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified).

Part Number (Uni)	Part Number (Bi)	Marking Code		Reverse Stand off Voltage V _R (V)	Breakdown Voltage V _{BR} @ I _T (V)		Test Current I _T (mA)	Maximum Clamping Voltage V _C @ I _{PP} (V)	Maximum Peak Pulse Current I _{PP} (A)	Maximum Reverse Leakage I _R @ V _R (μA)
		Uni	Bi		Min	Max				
P4SMA6.8A	P4SMA6.8CA	6.8A	6.8CA	5.8	6.45	7.14	10	10.5	39	500
P4SMA7.5A	P4SMA7.5CA	7.5A	7.5CA	6.4	7.13	7.88	10	11.3	36.3	500
P4SMA8.2A	P4SMA8.2CA	8.2A	8.2CA	7.02	7.79	8.61	10	12.1	33.9	200
P4SMA9.1A	P4SMA9.1CA	9.1A	9.1CA	7.78	8.65	9.55	1	13.4	30.6	50
P4SMA10A	P4SMA10CA	10A	10CA	8.55	9.5	10.5	1	14.5	28.3	10
P4SMA11A	P4SMA11CA	11A	11CA	9.4	10.5	11.6	1	15.6	26.3	5
P4SMA12A	P4SMA12CA	12A	12CA	10.2	11.4	12.6	1	16.7	24.6	5
P4SMA13A	P4SMA13CA	13A	13CA	11.1	12.4	13.7	1	18.2	22.5	1
P4SMA15A	P4SMA15CA	15A	15CA	12.8	14.3	15.8	1	21.2	19.3	1
P4SMA16A	P4SMA16CA	16A	16CA	13.6	15.2	16.8	1	22.5	18.2	1
P4SMA18A	P4SMA18CA	18A	18CA	15.3	17.1	18.9	1	25.5	16.1	1
P4SMA20A	P4SMA20CA	20A	20CA	17.1	19	21	1	27.7	14.8	1
P4SMA22A	P4SMA22CA	22A	22CA	18.8	20.9	23.1	1	30.6	13.4	1
P4SMA24A	P4SMA24CA	24A	24CA	20.5	22.8	25.2	1	33.2	12.3	1
P4SMA27A	P4SMA27CA	27A	27CA	23.1	25.7	28.4	1	37.5	10.9	1
P4SMA30A	P4SMA30CA	30A	30CA	25.6	28.5	31.5	1	41.4	9.9	1
P4SMA33A	P4SMA33CA	33A	33CA	28.2	31.4	34.7	1	45.7	9	1
P4SMA36A	P4SMA36CA	36A	36CA	30.8	34.2	37.8	1	49.9	8.2	1
P4SMA39A	P4SMA39CA	39A	39CA	33.3	37.1	41	1	53.9	7.6	1
P4SMA43A	P4SMA43CA	43A	43CA	36.8	40.9	45.2	1	59.3	6.9	1
P4SMA47A	P4SMA47CA	47A	47CA	40.2	44.7	49.4	1	64.8	6.3	1
P4SMA51A	P4SMA51CA	51A	51CA	43.6	48.5	53.6	1	70.1	5.8	1
P4SMA56A	P4SMA56CA	56A	56CA	47.8	53.2	58.8	1	77	5.3	1
P4SMA62A	P4SMA62CA	62A	62CA	53	58.9	65.1	1	85	4.8	1
P4SMA68A	P4SMA68CA	68A	68CA	58.1	64.6	71.4	1	92	4.5	1
P4SMA75A	P4SMA75CA	75A	75CA	64.1	71.3	78.8	1	103	4	1
P4SMA82A	P4SMA82CA	82A	82CA	70.1	77.9	86.1	1	113	3.6	1
P4SMA91A	P4SMA91CA	91A	91CA	77.8	86.5	95.5	1	125	3.3	1
P4SMA100A	P4SMA100CA	100A	100CA	85.5	95	105	1	137	3	1
P4SMA110A	P4SMA110CA	110A	110CA	94	105	116	1	152	2.7	1
P4SMA120A	P4SMA120CA	120A	120CA	102	114	126	1	165	2.5	1
P4SMA130A	P4SMA130CA	130A	130CA	111	124	137	1	179	2.3	1
P4SMA150A	P4SMA150CA	150A	150CA	128	143	158	1	207	2	1
P4SMA160A	P4SMA160CA	160A	160CA	136	152	168	1	219	1.9	1
P4SMA170A	P4SMA170CA	170A	170CA	145	162	179	1	234	1.8	1
P4SMA180A	P4SMA180CA	180A	180CA	154	171	189	1	246	1.7	1
P4SMA200A	P4SMA200CA	200A	200CA	171	190	210	1	274	1.5	1
P4SMA220A	P4SMA220CA	220A	220CA	185	209	231	1	328	1.3	1
P4SMA250A	P4SMA250CA	250A	250CA	214	237	263	1	344	1.2	1
P4SMA300A	P4SMA300CA	300A	300CA	256	285	315	1	414	1	1
P4SMA350A	P4SMA350CA	350A	350CA	300	332	368	1	482	0.9	1
P4SMA400A	P4SMA400CA	400A	400CA	342	380	420	1	548	0.8	1
P4SMA440A	P4SMA440CA	440A	440CA	376	418	462	1	602	0.7	1
P4SMA480A	P4SMA480CA	480A	480CA	408	456	504	1	658	0.6	1
P4SMA510A	P4SMA510CA	510A	510CA	434	485	535	1	698	0.6	1
P4SMA530A	P4SMA530CA	530A	530CA	477	503.5	556.5	1	725	0.6	1
P4SMA540A	P4SMA540CA	540A	540CA	486	513	567	1	740	0.5	1
P4SMA550A	P4SMA550CA	550A	550CA	495	522.5	577.5	1	760	0.5	1

Ratings and Characteristic Curves

(Ratings at 25°C ambient temperature unless otherwise specified).



Fig.1 Peak Pulse Power Rating

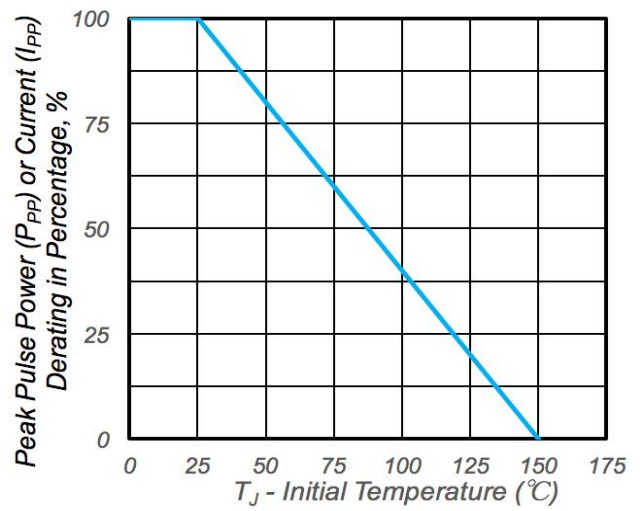


Fig.2 Pulse Derating Curve

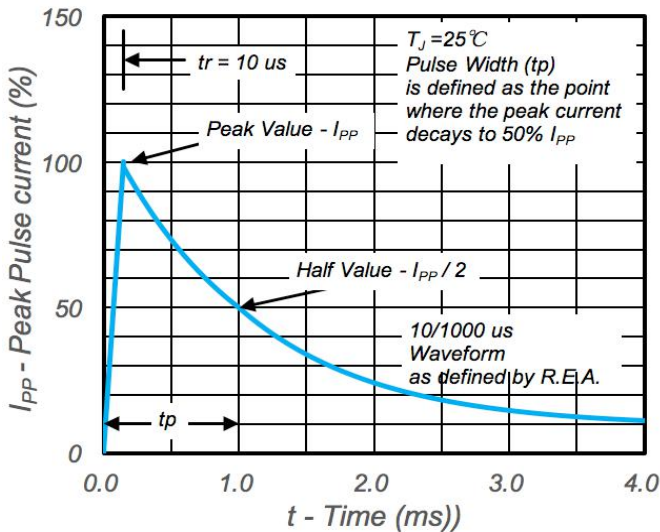


Fig.3 Pulse Waveform

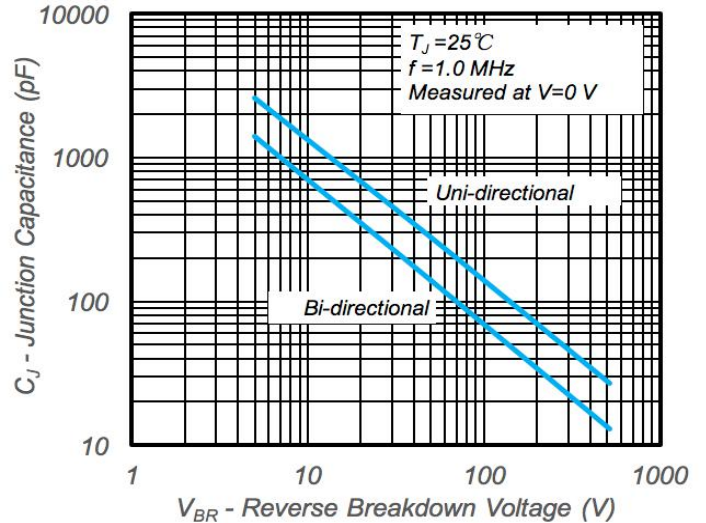


Fig.4 Typical Junction Capacitance

Package Outline Dimensions: SMA(DO-214AC)

Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	4.1	4.3	0.161	0.169
D	2.5	2.7	0.098	0.106
D1	1.3	1.5	0.051	0.059
T	4.8	5.2	0.189	0.205
T1	0.9	1.5	0.035	0.060
d	-	0.2	-	0.008
H	2.05	2.35	0.081	0.093
H1	2.0	2.2	0.079	0.087